

Thus also we get rid of every reason for placing Iceland in the map\* as belonging at present to the circle of distribution of the lemmings, and likewise for placing it among the countries which have a western or American fauna of terrestrial mammals†; for, provided the Iceland mouse is to be regarded as a terrestrial mammal of the island before its peopling, there cannot be the least shadow of doubt that, like the species of *Helix* and the other land and freshwater mollusca, with the whole of the land flora, it points towards Scandinavia and Lapland, and removes the island from Greenland and North America. It was also in opposition to this *eastern* type in the existing flora and fauna of Iceland that the distinctly expressed *western* or *American* type which I found in the Icelandic Tertiary flora of the Surturbrands had already struck me as so remarkable.

But these discussions lead in the end to a pressing request to the Icelanders that they will send to the Zoological Museum from different districts of that great island the mice living in the open country and far from human habitations, especially preserved in spirits; for, although there is no particular reason for supposing that there would be among them forms which we do not already know, still several important scientific questions attach to this mouse:—first and chiefly whether the definite peculiarities upon which it has been thought that it might be set up as a peculiar species, or a peculiar Icelandic variety of another allied mouse, are always present; and next, whether, if this be the case, these peculiarities can be supposed to have been developed in Iceland, or whether they also occur elsewhere and may have come thence with the mice to Iceland.

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#### BIBLIOGRAPHICAL NOTICE.

*Preglacial Man, and Geological Chronology.* By J. SCOTT MOORE.  
8vo, pp. 120. Dublin and London, 1868.

WHEN the Hebrew sage gave expression in his native language to a view of creation and cosmogony according to the wisdom of the Egyptians, he began his divine mission by withdrawing his people from the superstitions of ignorance and fear, and fixing their attention on the one omnipotent and omniscient Creator. What remains

\* See map lxxxv., p. 266, of Murray's work.

† See Murray's map ci., p. 308. If the synonymy given by Murray be correct, and *Myodes granlandicus* be really identical with one of Pallas's species from Siberia, this will prove that this lemming's occurrence in Iceland would just as well indicate an eastern as a western fauna for that island.

to us, in altered language, of his grand but vague conception of earth's earliest days has been a light indeed to millions, who would have had no thought of Nature's unity and order, but would have lived in alternate apathy and fear, trembling at the tempest-god and basking in the sun-god's rays. Who knows how many generations of active, observant, meditative men, born and bred amidst Asiatic and Egyptian civilization, lived and died before the fruits of their observation and thought had ripened in the form that Moses found in Egypt, and with which he vivified and fed the Israelitish mind, giving it strength for future greatness? Whether fashioned in the visions of the night, or in the waking ecstasies of the day, or worked out in cool and sober exercise of his judgment, the Mosaic Cosmogony is such as the philosopher of Egypt, knowing something of the nature of things, and recognizing something of the relationships of living beings, would represent in his picture of new-born Nature—the universal preceding the special, the inert preceding the active, vegetation preceding animal life, the fish and bird preceding four-footed creatures, and the brute beast preceding intelligent Man. For he knew that the land comes from the sea, grass from the earth, that water must preexist for the inhabitants of water, and that for the animals that feed on grass, and for those that eat their fellows, the conditions of life must preexist—that the great come from the small, and that the brute, by analogy, must have preceded the intelligent.

In after ages several of the aspects, conditions, and phenomena of heaven, earth, and animated nature were better understood; and in still later times a knowledge of their mutual relationships, probable origin, and manifold changes has been, in many cases, either mastered or approached. The physician of the middle ages was both hampered with the (to us absurd) notion that the Aristotelian system of philosophy was perfect and not to be infringed, and further fettered with the belief that all would be wrong if the Hebraic legends of Nimrod, Noah, Tubal, Jubal, Jabal, Cain, and Adam were not fully accepted. Nor, indeed, can we at the present day, free as we are from the proofless fancies and needless errors of mediæval thinkers, separate for ourselves the useful moral lessons of the old Hebrews from the long-cherished influence of their local traditions, vague legends, and mythical poetry, and cease altogether to be trammelled with a universal deluge, a single human race (whether Adamitic or Noachian), a primeval golden age, and a "hexaëmeron" of creation for the universe,—all incongruous with the exact results of observational, experimental, mathematical, and inductive science.

Astronomy has corrected many of the old-world notions, and yet the Mosaic writings have not lost their moral power in guiding the hearts of men. Geology has proved that the readily suggested idea of sea-shells and mammoth-bones having been left on high hills by a deluge is totally incorrect, and that the earth's crust has been formed of innumerable layers of sediment, each dating by years or ages, often interrupted for long periods, and moreover warped into undulations, like crumpled cloth, by the crush of slow contraction—

that these strata, too, have been pared down by the slow action of sea-waves, or of the weather, rain, and glacières—and, besides, are full of the remains of successive groups of animals and plants, for any one of which successions our history seems too short a term. Nor does geology fully confirm the bold generalization that the higher kinds of animals did not exist in early times; for though the evidence is strong in that direction, it is not so powerful as it was some years ago. And yet the good old sage's teaching, that the earth is God's, and is not self-existent, that man is God's, and is not to worship earth nor seek wholly his pleasure in himself and in the present, is not weakened—it is enforced; for every added fact of the earth's great history supplies a link for us in the great chain of orderly succession, connecting the beginning, when God created the heaven and the earth, with the beauty and progressive order of to-day.

But anthropology does no less, and philology, with clear-headed antiquarian research; all help to take the history of man out of the domain of tradition and the region of legendary myths,—finding the lost places of habitation by the broken column of the city or by the shell-heap and stone knife of the cave-dweller, piecing the broken languages of sculptured rock and tablet—finding the real meaning of names, and tracing the nursery-tale, through legend and myth, to its simple germ among the child-nations, giving simple utterance to their thoughts of nature and their gods, of their people, their wanderings, their conflicts, and their prowess—and, lastly, comparing man with man, in his many forms and in his widely separate abodes, undreamt of by the sages of antiquity. And when man shall have been known in all his present and past modifications, far exceeding already the limited ethnology of the genealogist of Canaan, Judæa, and Syria, his religious teaching will still be based on the grand and true enunciation of Moses, that his Creator is an eternal, omnipotent, omniscient, and loving Father.

As information is collected year by year, the old notions concerning the history of the earth and man are broken one by one; but few of those most concerned in finding and proving new facts can do more than follow their own line of research, and give their knowledge to their fellows and the world. There are, however, many intelligent readers of scientific books and memoirs who, without original research of their own, appreciate the labours of others, and strive, with good intentions, to lay before the public their best digested views of how things are now to be understood, boldly setting aside some of the old notions—leaving others, reduced in importance, to survive awhile for those with whom they are sacred beliefs,—turning the oft-translated word of forgotten alliance in a new direction, and shaping the obsolete phrase to a new meaning,—finding undreamt-of analogies and curious coincidences in a simple statement of hoar antiquity,—matching the known prehistoric remains of man with mythical nations,—and once again, like previous compilers of half-mastered statements, expounding, sorting, and patching the ill-understood researches of geologist and

anthropologist until they agree with the grand and vague system of primæval nature which, with its literal simplicity, general truthfulness, and sublime import, prefaces the old records of Hebrew and Canaanite, their wars and their wanderings in narrow limits between the Euphrates and the Nile.

Since Mr. J. S. Moore's book entitled 'Preglacial Man' was published, he will have discovered probably that geologists know of no 'Preglacial Man' as yet: if he has learnt this, he will know of several other weaknesses in his book; if he has not, it matters little, for the book can influence no scientific person, and its other readers may live and learn.

We notice this book as one of those very numerous attempts to widen the spread of scientific knowledge, though the information offered is not what it ought to be, and though its hypotheses are the vain offspring of hypotheses as yet unproved,—altogether the result of a partial study of modern British geology, shaped by the author's views, and framed with the fragments of a belief in the Mosaic cosmogony, laboriously worked up with his present notions of natural science as elucidating the history of the earth and man.

## PROCEEDINGS OF LEARNED SOCIETIES.

### ROYAL SOCIETY.

April 22, 1869.—Joseph Prestwich, Esq., Vice-President, in the Chair.

“Description of *Parkeria* and *Loftusia*, two gigantic Types of Arenaceous Foraminifera.” By DR. CARPENTER, V.P.R.S., and H. B. BRADY, F.L.S.

The Authors of this Memoir commence by referring to the separation of the series of *Arenaceous* Foraminifera from the *Imperforate* or *Porcellanous*, and from the *Tubular* or *Vitreous*, first distinctly propounded in Dr. Carpenter's 'Introduction to the Study of the Foraminifera' (1862), on the basis of the special researches of Messrs. Parker and Rupert Jones, who had pointed out that whilst there are several genera in some forms of which a cementation of sand-grains into the substance of the calcareous shell is a common occurrence, there are certain genera in which a “test” formed entirely of an aggregation of sand-grains takes the place of a calcareous shell, and that these genera constitute a distinct Family to which important additions might probably be made by further research.

The propriety of this separation of the *Arenacea* from the calcareous-shelled Foraminifera has been fully recognized by Prof. Reuss, the highest Continental authority upon the group, who had come to accept the principle laid down in Dr. Carpenter's successive Memoirs (Phil. Trans. 1856-1860), that the *texture of the shell* is a character of fundamental importance in the classification of this group, the *plan of growth* (taken by M. d'Orbigny as his primary character)